LOCALIZER & GLIDE SLOPE BUILDINGS
RUNWAY 25L
PHOENIX SKY HARBOR AIRPORT

GENERAL SPECIFICATIONS

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GENERAL SPECIFICATIONS

PART 1 GENERAL

1.1 STATEMENT OF WORK

This specification, together with the referenced specifications, standards, and drawings, cover the requirements for the work associated with the design, fabrication, and delivery of the equipment buildings for the runway 25L Localizer (LOC) and Glide Slope (GS) at the Phoenix Sky Harbor in Phoenix, Arizona.

Work includes (but is not limited to):

- Design and Fabrication of two outdoor metal equipment buildings per the requirements listed below.
- Delivery of the buildings to the site and off-loading the buildings at the site (show a separate cost breakdown for shipping).

Note: All fabrication, equipment installation, and initial testing shall be done indoors at the contractor's shop. The contractor shall allow open access to the FAA while fabrication and equipment installation is taking place.

The contractor is required to furnish all labor, materials (except Government furnished), services, equipment, insurance, bonds, security notifications, licenses, permits, and fees in accordance with applicable federal, state and local regulatory requirements to complete the specified work. Any miscellaneous labor, equipment and/or materials not specifically detailed or specified, but required to complete the project, shall be provided as an integral part of the work.

THIS IS A DESIGN/BUILD PROJECT. THE SALIENT FEATURES AND MINIMUM REQUIREMENTS ARE LISTED BELOW. THE ATTACHED DRAWINGS ARE PROVIDED TO GIVE THE CONTRACTOR A CONCEPTUAL IDEA OF A TYPICAL LOCALIZER AND GLIDE SLOPE EQUIPMENT BUILDING. THE CONTRACTOR IS ENCOURAGED TO PROVIDE A NEW AND UNIQUE PROPOSAL THAT WOULD BEST BENEFIT THE FAA.

1.1.1 Design and Fabrication - Salient Features and Minimum Requirements (Unless otherwise indicated, the features listed are per building)

Building shall be steel, factory assembled, self-contained, and portable.
All necessary material not otherwise indicated to be Government furnished, shall be provided by the shelter manufacturer.

All work shall be in compliance with FAA Specification FAA-C-1217f, FAA Standard FAA-STD-019e, and the National Electric Code.

Structural:

- Dimensions:
  Localizer Bldg: 12' wide x 16' long (exterior dimensions) x 9' high (interior dimension)
  Glide Slope Bldg: 12' wide x 16' long (exterior dimensions) x 9' high (interior dimension)
- Loadings: 250 psf floor, 85 psf roof (live load), 125 mph sustained wind.
- Walls: Exterior walls shall be 12-gauge paint quality steel. Interior walls shall accommodated 400 lbs. Per linear ft and be finished with ¾" painted plywood. Ceiling shall be finished with ½" painted plywood.
- Insulation: LTTR* R-Value 25.0 for Roof; LTTR* R-Value 18.5 for walls and floor. * Long Term Thermal Resistance values provide a 15 year time-weighted average in accordance with CAN/ULC-S770.
- Roof: Roof slope shall be ¼" per foot and waterproofed as approved. A 6 inch high by 2 inch deep "drip edge" shall be installed around the upper perimeter of the building, as approved.
- Floor beams shall be hot dipped galvanized.
- The building shall be designed and fabricated to prevent the entry of rain, snow, and other moisture. The building shall also be impervious to rodents. Welded threaded couplings (1/2 length) shall be used at exterior entry points.
- Approximate total weight of finished building (with equip) = 15,000 lbs.

Color and Paint:

- Exterior: 3 mil epoxy primer and 15 mil electromeric liquid coating. Paint shall have a non-reflective sheen (flat) as approved. The buildings shall be Aviation Orange and White checkerboard pattern as indicated on the drawings.
- Interior Walls: Navajo White, such as Benjamin Moore #947 , with an eggshell sheen and light texture finish, as approved. Interior primer as approved.
- Interior side of external door and interior door trim: ANSI 70 Gray, as approved.

Electrical Panel & Disconnect:

Provide and install a Main Distribution Panel (Square D # NQOD42M150CU with a 150A main breaker and bolt-on breakers as required) and a 200A Double Throw Safety Switch (such as Square D # 82354) with an approved 100A exterior receptacle/enclosure.

Surge Protection:

Provide and install Surge Protection for the main service disconnect and main distribution panel.

- Surge arrestor for the main service disconnect: such as Ravoss 120-2S-M3-3-O6-A-H.
- Surge arrestor for the main distribution panel: such as Ravoss 120-2S-M3-3-O6-A-H.

HVAC:
Provide and install two each, self contained heat/air units with 2 ton air conditioning, 5 kW heating and integrated thermostat. Units shall have a scroll compressor. Identify each unit as "HVAC #1" and "HVAC #2".

Grounding:
Run a grounding electrode conductor from the service disconnect to outside of the building, as approved. Leave at least 20' of slack (to be connected to the shelter counterpoise by the field contractor).

Provide and install a single "MAIN" ground plate, as approved. Supply #4/0 XHHW cables with two stud hole type compression lugs on the plate end of the cables, long enough to extend 20 ft out of the building at two locations. One exit location is near the ground plate and the other exit location is on the opposite side of the building. Run the #4/0 interior section from the ground plate to the opposite side of the building in 1 ½" PVC conduit. Connections to the ground plate shall be made with appropriate size lugs, stainless steel bolts, flat washers, disc spring washers, and nuts (do not install washer between bonded members). Additionally, provide and install a 2.5" x 10' sch 80 pvc section with LB on the outside of the building as approved – two places. The exterior vertical pvc section shall be attached to the building at three ft max spacing as approved.

For the Localizer building, provide and install rooftop counterpoise, air terminals, and down conductors (per FAA-STD-019e). Leave at least 20' of down conductor slack at the ends (to be connected to the shelter counterpoise by the field contractor). Rooftop counterpoise, air terminals, and down conductors are not required for the Glide Slope building.

Provide and install ground lugs (to accommodate #4/0) on shelter skids at all four corners.

Lighting:
Interior fluorescent lighting shall be mounted with a 1 5/8" offset from the ceiling and have wire guard diffusers, as approved.
Additional emergency lighting shall be provided (90 minute backup).
A photo electrically controlled exterior high-pressure sodium light (with an override switch labeled "photocell on/off") shall be installed at the exterior door as approved.

Outlets, Receptacles, switches, jct box's:
Provide and install all necessary outlets, receptacles, switches, smoke detectors, junction boxes, and terminal boxes as required. Use clamp backs to provide space between the conduits and the mounting surfaces (walls and ceilings). Provide an exterior GFI outlet w/ weatherproof lockable enclosure as approved.

Door:
Exterior door shall be steel, weather tight, with a lever type passage handle and dead bolt (w/ Best construction core), as approved.
Provide hydraulic door opener and door stop (such as Grainger #5U618), as approved.

Provide a door canopy (with sealed drip edge), as approved.

Miscellaneous Items (for each bldg):

* Provide and install a fire extinguisher (such as Grainger #4T889).
* Provide and install a ceiling retractable power cord reel (such as Grainger #1A136).
* Provide heavy duty storage cabinet, such as Grainger #5JL46.
* Provide and install a 60"w x 30"d Work Bench:
    - 3 Drawer/1 Panel Leg, with Butcher Block Maple; such as Grainger #7D079.
    - Electronic Riser; such as Grainger #5W674.
    - Back & End Stops; such as Grainger #5W676.
    - Electronic Riser Wiring Kit; such as Grainger #4TW73.
    - Chair for Work Desk, as approved.
* Provide heavy duty service cart, such as Grainger #5M716.
* Provide step stool, such as Grainger #5M656.
* Provide 12/24 hour wall clock, as approved.
* Waste Basket (such as Grainger #5M743), Broom (such as Grainger #3BE88), and Dust Pan (such as Grainger #5W639).
* Bottle (32 oz) each of Commercial Grade window and grease cleaner, such as Windex® and 409®.
* "Rags in a Box" (180.5 sq ft).
* Provide ½" thick plywood cutouts representing the future FAA Electronic Equipment (dimensions for the Combining Unit Box, and Equipment Rack be provided) and place on the wall or floor as directed.

Stairs:

Provide steel grate stairs, as approved. Stairs shall be 4' wide with a 4' deep top platform. The individual stair treads shall be 12" deep and have a 7.25" rise. Total height of the stairs shall be 21.75".

Identification:

Provide identification for all panel boards, safety switches, enclosures, junction box's, etc., per FAA-C-1217f, and as approved. Unless otherwise indicated, name plates shall be black with white 3/8" high engraved letters.

Provide an identification sign on the building as approved (ie, FAA 25L LOC, and FAA 25L GS). In addition, provide and attach FAA Warning Sign (available from Bennett's Decal & Label, Okla City, OK, 405-528-5671, P/N: ATCTWARNINGMETAL), as approved.

Mounting Plates:

Provide six each mounting plates (to attach the shelter skid to the foundation), as approved.

1.1.2 Delivery and off-loading the Building

The contractor shall be totally responsible for the delivery of the buildings to the site at the Phoenix Sky Harbor Airport. This includes the contractor's responsibility for meeting and complying with the Airport's security and access requirements.

The floor of the delivered buildings shall be covered and protected, as approved. Buildings shall be tarped or otherwise protected during transport. Loose material inside the building (desk, chairs, cabinets, etc), shall be secured to prevent movement during shipping. Any dirt or debris that gets accumulated on the building during delivery shall be cleaned off.
Once at the site, the contractor shall be responsible for off-loading the building. The building foundation will be installed by others.
Show a separate cost breakdown for shipping.

1.2 REFERENCES

FAA-C-1217f	Electrical Work, Interior
FAA-STD-019e	Lightning Protection, Grounding, Bonding, and Shielding.
NEC	National Electric Code

1.3 DRAWINGS

Drawings will be provided to show a general configuration and minimum requirements. The contractor is encouraged to show improvements and enhancements in the submitted proposal.

PHX-B-GS25L-ZfabA	Glide Slope, Building Interior Layout
PHX-B-GS25L-ZfabB	Glide Slope, Building Misc Details - 1
PHX-B-GS25L-ZfabC	Glide Slope, Building Misc Details - 2
PHX-B-LOC25L-ZfabA	Localizer, Building Interior Layout
PHX-B-LOC25L-ZfabB	Localizer, Building Misc Details - 1
PHX-B-LOC25L-ZfabC	Localizer, Building Misc Details - 2

1.4 SUBMITTALS

1.4.1 Building

Building drawings shall be provided in hardcopy and electronically in AutoCAD version 2007 format. Text documents shall be provided in hardcopy and electronically in Word 2003 format.

1.4.2 Material

The contractor shall submit catalog data, cut-sheets, samples, and any other required information to the FAA Project Engineer for approval of the following:

- Contractor furnished electrical components including panels, disconnects, enclosures, cables, connectors, and conduits.
- HVAC components.
- Contractor furnished hardware.
- Labels.
- Additional items deemed necessary by the Project Engineer.

1.4.3 Testing

The contractor shall complete (at his own expense) all testing as required by these specifications. The results shall be submitted to the FAA Project Engineer. Required testing includes, but is not limited to, the following:

- Ring out and continuity verification to insure proper termination.
- Cables (see FAA-C-1217f, 5.3.2)
- Load balancing (see FAA-C-1217f, 5.3.3)
- Insulation resistance test (see FAA-C-1217f, 5.3.4)
- Neutral isolation test (see FAA-C-1217f, 5.3.5)

PART 2 PRODUCTS

Reference herein or in the drawings to any specific commercial product, process, or service, any trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the Federal Aviation Administration. The contractor may submit a request for substitution of a product, process, or service specifically called out. Such request shall be through the submittal process.

2.1 not used

2.2 CONTRACTOR FURNISHED MATERIAL

The contractor shall furnish all material that is required and not otherwise indicated to be Government furnished. Materials furnished by the contractor shall be new, the standard products of manufacturers regularly engaged in the production of such materials, and of the manufacturer's latest designs that comply with the specification requirements.

In addition to the items listed in section 1.1.1 above, the contractor furnished material (for each building) includes, but is not limited to:

- 24"x48"x8" Exterior Interface Box's for LOC and GS buildings (to be mounted on the building as directed).
- 24x24x12 Comm box's (such as Hoffman CSD242412 enclosure w/ backplate).
- 60A Heavy Duty Safety Switch w/ 30A FRN-R-30 fuses, as required (GS bldg).
- Fire extinguisher (such as Grainger #4T889).
- Retractable ceiling mounted power cord reel (such as Grainger #1A136).
- Lights (interior, exterior, and emergency), outlets, electrical fittings, conduits, as required.
- Labels and Identification signs.
- Power, control, and grounding cable, as required.

PART 3 EXECUTION

3.1 FABRICATION SCHEDULE

All work shall be completed within 45 calendar days of the start date.

3.2 AS-BUILT DRAWINGS

Provide As-built drawings in AutoCAD version 2002 format.

3.3 INSTALLATION AND WORKMANSHIP

All work shall be performed according to the intent of the contract, and normal and accepted industry and Government standards.

The contractor shall be regularly engaged in the fabrication of shelters with existing plant facilities equipped for year around shelter manufacturing.

The contractor shall be capable and experienced in transporting shelters to active airports and remote sites using specialized trucks, trailers and cranes.

All work shall be accomplished by skilled workers regularly engaged in this type of work. Where required by local regulations, the workers shall be properly licensed. Electrical terminations and splices shall be done by a qualified electrician.

The contractor shall give constant attention to the work to facilitate the progress thereof, and shall cooperate with the FAA Project Engineer in every way possible. The contractor shall have a competent superintendent on the work site at all times who is fully capable of reading and thoroughly understanding the plans and specifications and shall receive and fulfill instructions from the Project Engineer.

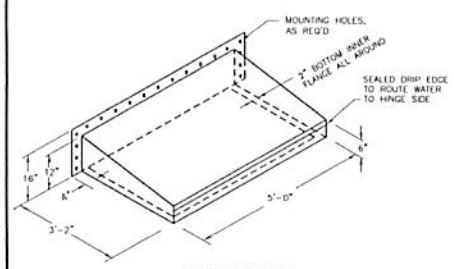
3.4 CONTRACTOR'S ACCEPTANCE INSPECTION

Prior to shipping the building to the site, the contractor shall participate in a Contractor's Acceptance Inspection (CAI) with the FAA Project Engineer. Items found to be deficient shall be corrected immediately or as directed.

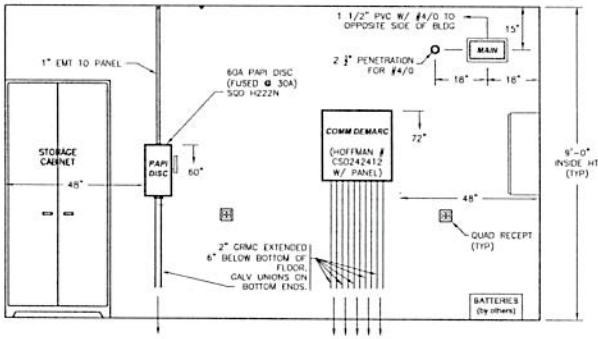
3.5 GUARANTEE

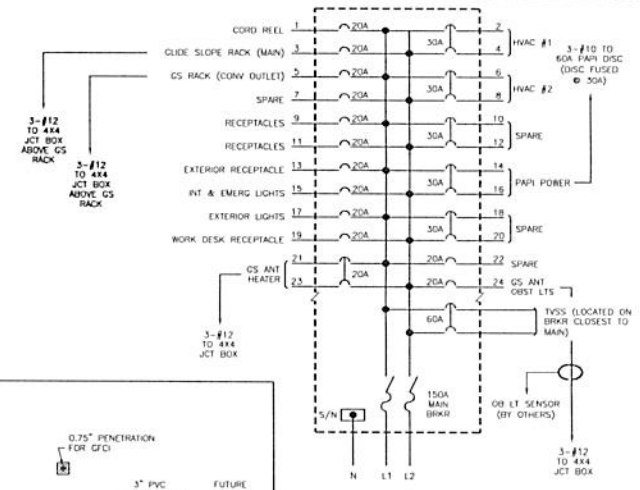
All work shall be guaranteed by the contractor against defects resulting from the use of inferior and/or defective materials, equipment, or workmanship for one year from the date of final completion of the project.

END OF SECTION

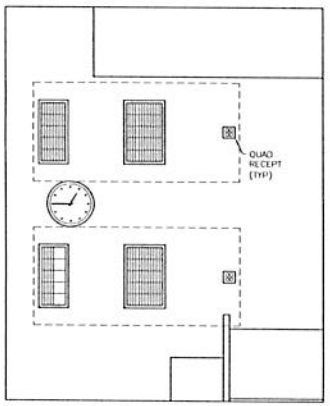


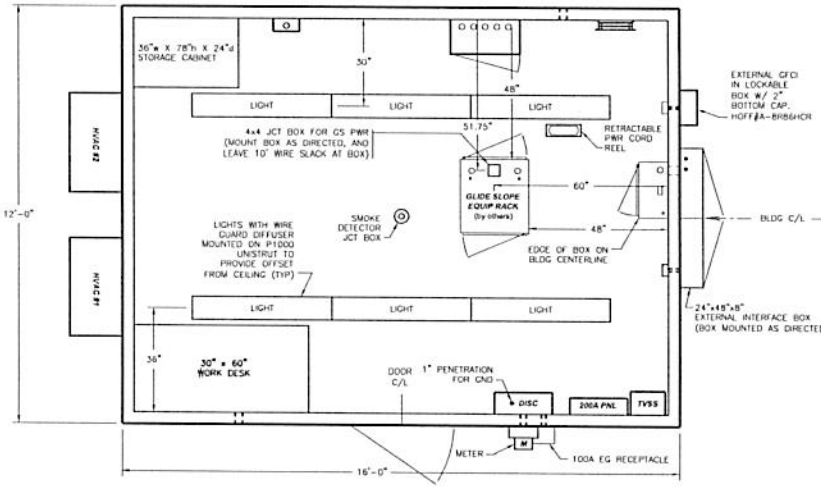
DOOR HOOD
NOT TO SCALE

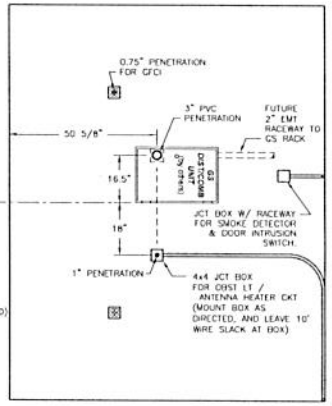




DISTRIBUTION PANEL
1Ø, 120/240V, 150A MAIN, 42 SPACES REQ'D







EXTERIOR WALL PENETRATIONS REQUIRED:

2" HUB FROM MAIN DISC TO METER LOCATION (THREADED COUPLING REQUIRED).

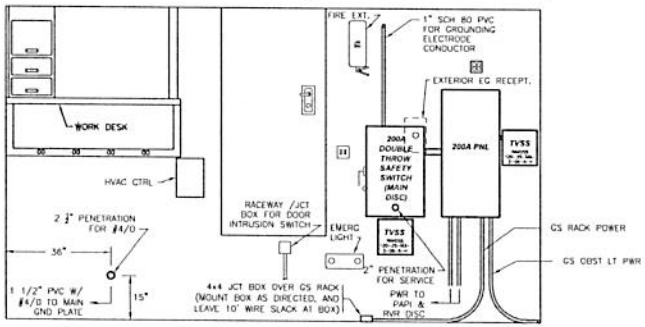
1.5" HUB FROM EXTERIOR EG RECEPTACLE. (THREADED COUPLING REQUIRED).

2-2.5" HUBS W/ INTERNAL PVC SLEEVE FOR MULTIPOINT GROUND (THREADED COUPLING REQUIRED).

0.75" SLEEVE FOR EXTERNAL GFCI OUTLET (FROM 4X4 BOX).

3" PVC SLEEVE FOR FUTURE DIST/COMB UNIT.

1" SLEEVE FOR FUTURE POWER TO GS ANTENNA (FROM 4X4 BOX).

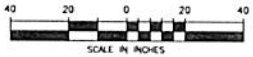


SAMPLE DOOR SIGN
NOT TO SCALE

EXTERIOR COLOR: ORANGE & WHITE CHECKERBOARD

NOTES:

1. ALL WORK SHALL BE IN COMPLIANCE WITH FAA SPECIFICATION 1217f, FAA STANDARD 019e, AND THE NATIONAL ELECTRIC CODE.
2. PROVIDE ADDITIONAL CONDUITS, RACEWAYS, RECEPTACLES, ENCLOSURES, CONTROLS FOR HVAC, AND MISC BLDG UTILITIES REQUIRED FOR THE FUNCTIONALITY OF THE BUILDING.
3. HVAC UNITS ARE SELF CONTAINED, HEAT/AIR UNITS WITH 2 TON AIR COOLING, 5 KW HEAT, AND A SCROLL COMPRESSOR.
4. PLACE PLYWOOD CUTOUTS REPRESENTING THE EQUIP RACK AND DIST/COMB UNIT AS DIRECTED.



reference

REV	APVD	DESCRIPTION	JCN	REVISION DATE	APVD

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
ATO - TECHNICAL OPERATIONS — WESTERN SERVICE AREA

GLIDE SLOPE BUILDING FABRICATION RUNWAY 25L BUILDING INTERIOR LAYOUT

PHOENIX — PHOENIX SKY HARBOR AIRPORT — AZ

REVIEWED BY	SUBMITTED BY:	APPROVED BY:
PROJECT ENGINEER: BOB BROWN		MGR: NAVAIDS ENGINEERING
DESIGNED: B.BROWN	ISSUED BY ENGINEERING SERVICES NAVAIDS	DATE: - JCN: -
DRAWN: B.BROWN		DRAWING NO.: PHX-B-GS25L-ZfabA REV - X
CHECKED:		

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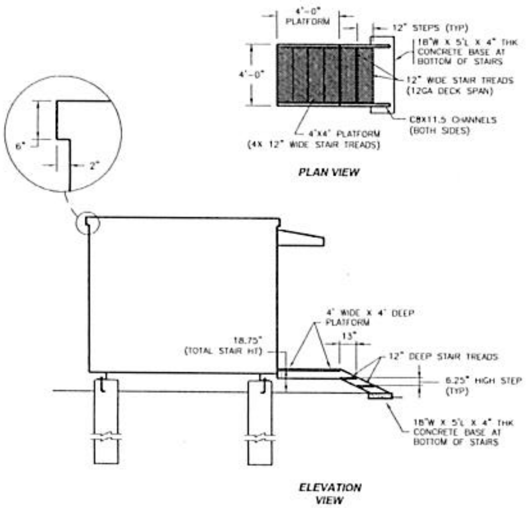
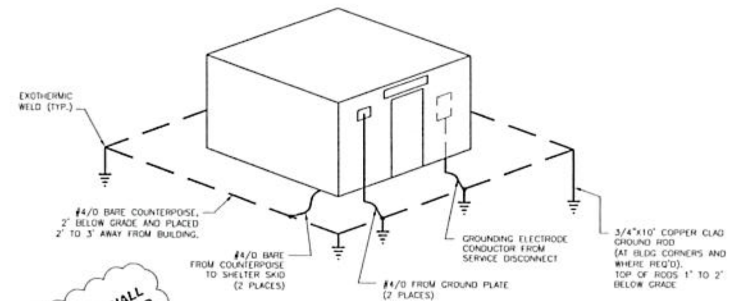


STEEL GRATE DOOR STEP DETAILS
NOT TO SCALE

STEEL STAIR STEPS AND CONCRETE BASE INSTALLED BY THE FIELD CONTRACTOR.



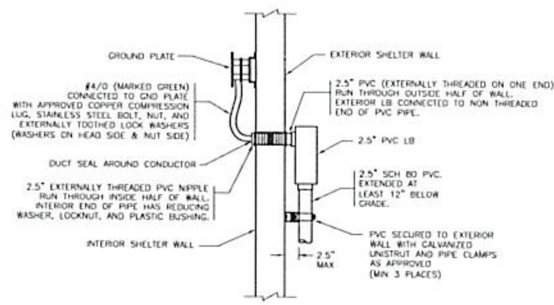
GROUNDING WORK BELOW GRADE SHALL BE INSTALLED BY THE FIELD CONTRACTOR.

TYPICAL EQUIPMENT BUILDING EXTERIOR LIGHTNING PROTECTION PLAN
NOT TO SCALE

NOTE:

GROUNDING CONDUCTORS FROM THE BUILDING TO THE COUNTERPOISE OUTSIDE OF THE BUILDING INCLUDE:

- GROUNDING ELECTRODE CONDUCTOR FROM THE MAIN SERVICE DISCONNECT (ROUTED IN 1" SCH 80 PVC).
- GROUNDING CONDUCTORS FROM GROUND PLATE (ROUTED IN 2.5" SCH 80 PVC).
- GROUNDING CONDUCTORS FROM THE SHELTER SKIDS (2 PLACES).
- GROUNDING CONDUCTOR FROM EXTERNAL INTERFACE BOX (CHASSIS & BULKHEAD GNDS) - NOT SHOWN ABOVE.



ROUTING DETAIL FOR #4/0 FROM GND PLATE
NOT TO SCALE

reference

REV	REVISED DATE	DESCRIPTION	JCN	RECD/RC DATE	APVD

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
ATO - TECHNICAL OPERATIONS — WESTERN SERVICE AREA

GLIDE SLOPE BLDG FABRICATION
RUNWAY 25L
BUILDING MISC DETAILS - 1

PHOENIX — PHOENIX SKY HARBOR AIRPORT — AZ

REVIEWED BY	SUBMITTED BY:		APPROVED BY:	
	PROJECT ENGINEER: BOB BROWN		MGR: NAVAIDS ENGINEERING	
	DESIGNED: B.BROWN	ISSUED BY	DATE: .	JCN: .
	DRAWN: B.BROWN	ENGINEERING SERVICES NAVAIDS	DRAWING NO.:	REV
	CHECKED:		PHX-B-GS25L-ZfabB	.

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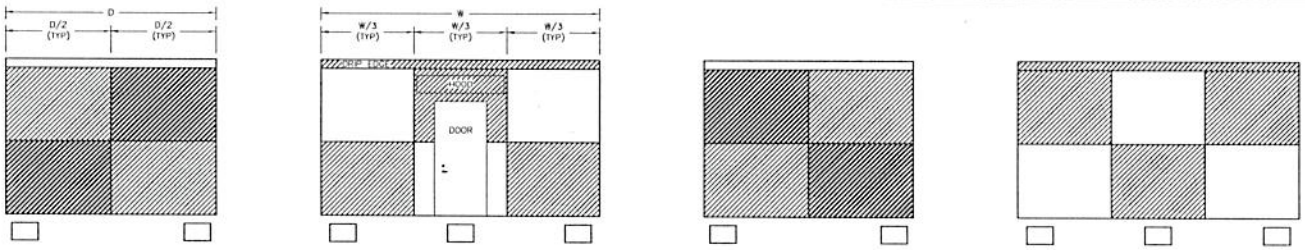
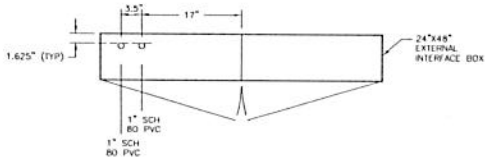


12X16 EQUIPMENT BUILDING
CHECKERBOARD PAINT PATTERN

NO SCALE

AVIATION ORANGE

WHITE



PENETRATION DIMENSIONS
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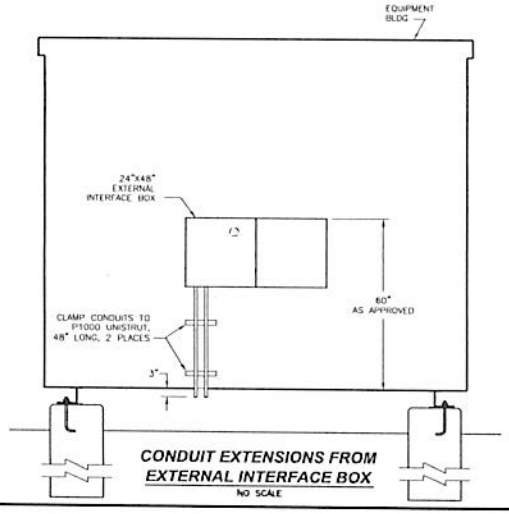
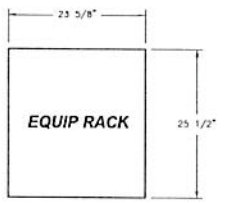
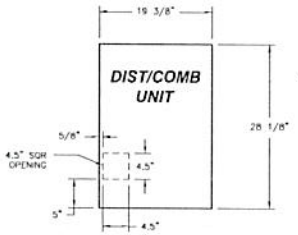


CONDUIT EXTENSIONS FROM EXTERNAL INTERFACE BOX
NO SCALE



CUTOUT REPRESENTING LOCALIZER EQUIP RACK
(PLACED ON FLOOR AS DIRECTED)
CUTOUT MADE FROM 1/2" THK PLYWOOD - NO SCALE



CUTOUT REPRESENTING DIST/COMB UNIT
(PLACED ON WALL AS DIRECTED)
CUTOUT MADE FROM 1/2" THK PLYWOOD - NO SCALE

reference

		DESCRIPTION	JCN	REQ'D/E DATE	APVD
		APPROVED DATE			

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
ATO - TECHNICAL OPERATIONS — WESTERN SERVICE AREA

GLIDE SLOPE BLDG FABRICATION
RUNWAY 25L
BUILDING MISC DETAILS - 2

PHOENIX — PHOENIX SKY HARBOR AIRPORT — AZ

REVIEWED BY		SUBMITTED BY:	APPROVED BY:
-	-		
-	-	PROJECT ENGINEER: BOB BROWN	MGR, NAVAIDS ENGINEERING
-	-	DESIGNED: B.BROWN	ISSUED BY ENGINEERING SERVICES NAVAIDS — DATE: - JCN: -
-	-	DRAWN: B.BROWN	DRAWING NO.: PHX-B-GS25L-ZfabC — REV -
-	-	CHECKED	

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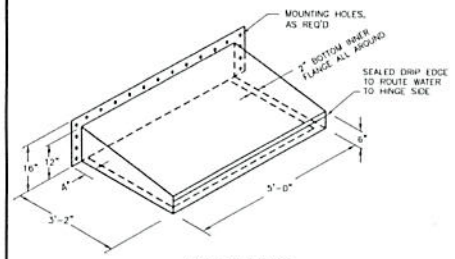

DOOR HOOD
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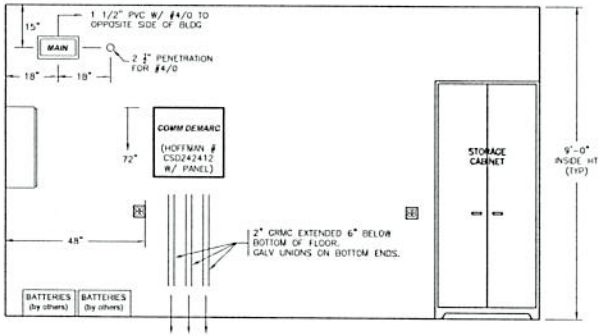
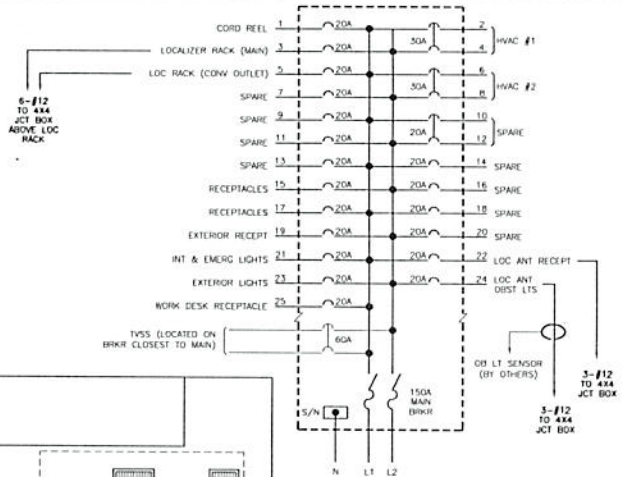
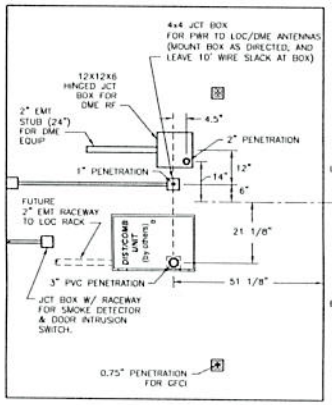
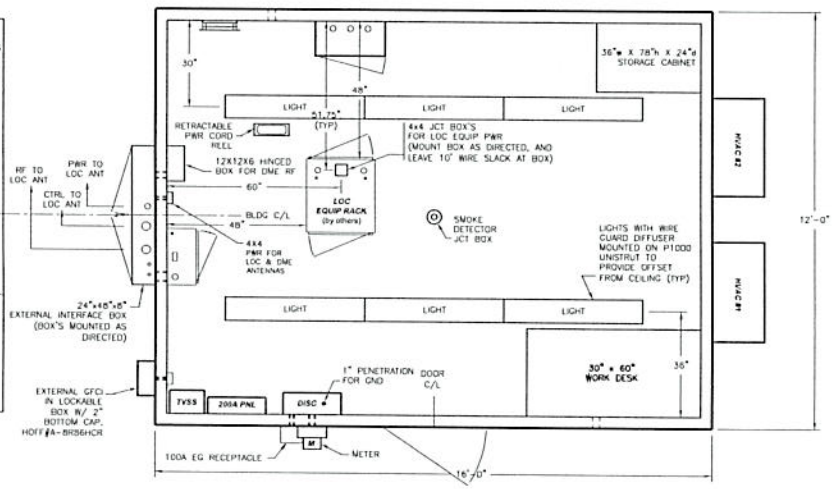
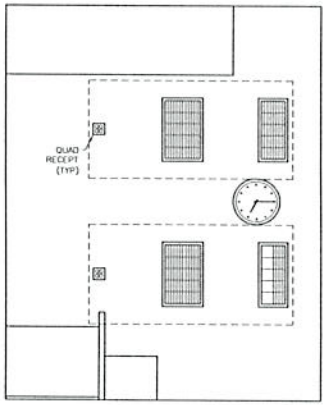




DISTRIBUTION PANEL
1Ø, 120/240V, 150A MAIN - 42 SPACES REQ'D







EXTERIOR WALL PENETRATIONS REQUIRED:

2" HUB FROM MAIN DISC TO METER LOCATION (THREADED COUPLING REQUIRED).

1.5" HUB FROM EXTERIOR EG RECEPTACLE. (THREADED COUPLING REQUIRED).

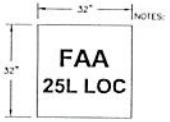
2- 2.5" HUBS W/ INTERNAL PVC SLEEVE FOR MULTIPOINT GROUND (THREADED COUPLING REQUIRED).

0.75" SLEEVE FOR EXTERNAL GFCI OUTLET (FROM 4X4 BOX).

3" PVC SLEEVE FOR FUTURE DIST/COMB UNIT.

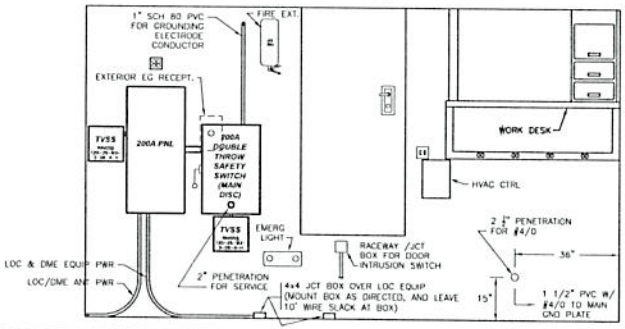
1" SLEEVE FOR FUTURE POWER TO LOC/DME ANT (FROM 4X4 BOX).

2" SLEEVE FOR FUTURE DME RF (FROM 12X12 BOX).



SAMPLE DOOR SIGN
NOT TO SCALE

EXTERIOR COLOR: ORANGE & WHITE CHECKERBOARD



1. ALL WORK SHALL BE IN COMPLIANCE WITH FAA SPECIFICATION 1217I, FAA STANDARD 019e, AND THE NATIONAL ELECTRIC CODE.
2. PROVIDE ADDITIONAL CONDUITS, RACEWAYS, RECEPTACLES, ENCLOSURES, CONTROLS FOR HVAC, AND MISC BLDG UTILITIES REQUIRED FOR THE FUNCTIONALITY OF THE BUILDING.
3. HVAC UNITS ARE SELF CONTAINED, HEAT/AIR UNITS WITH 2 TON AIR COOLING, 5 KW HEAT, AND A SCROLL COMPRESSOR.
4. PLACE PLYWOOD CUTOUTS REPRESENTING THE EQUIP RACK AND DIST/COMB UNIT AS DIRECTED.

reference

APPROVED DATE	DESCRIPTION	JCN	REVISED DATE	APVD
-	-	-	-	-

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
ATO – TECHNICAL OPERATIONS — WESTERN SERVICE AREA

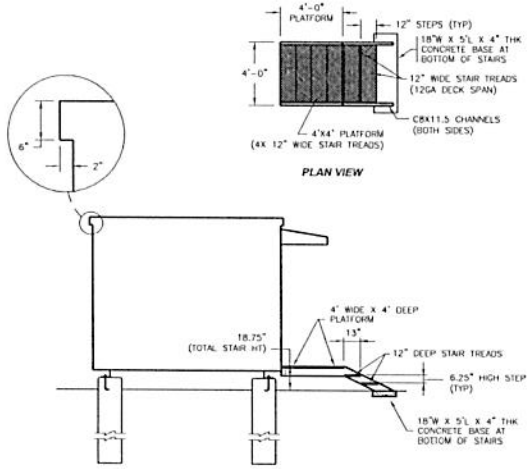
LOCALIZER BUILDING FABRICATION RUNWAY 25L BUILDING INTERIOR LAYOUT

PHOENIX — PHOENIX SKY HARBOR AIRPORT — AZ

REVIEWED BY		SUBMITTED BY:		APPROVED BY:	
-	-				
-	-	PROJECT ENGINEER: BOB BROWN		MGR: NAVAIDS ENGINEERING	
-	-	DESIGNED: B.BROWN	ISSUED BY	DATE: -	JCN: -
-	-	DRAWN: B.BROWN	ENGINEERING SERVICES NAVAIDS	DRAWING NO.: PHX-B-LOC25L-ZfabA	REV. .
-	-	CHECKED:			

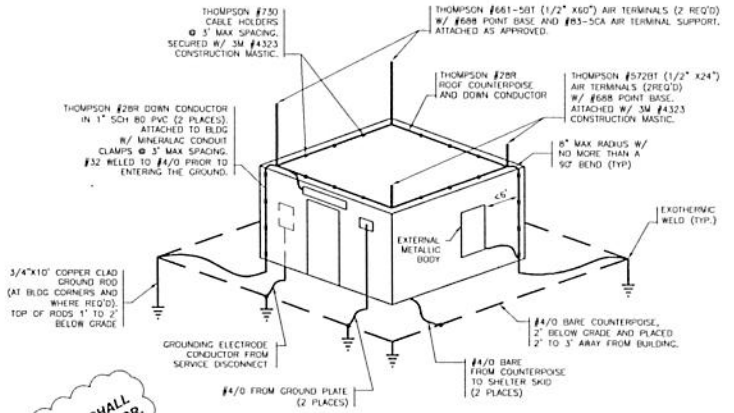
X

2.15.11



STEEL GRATE DOOR STEP DETAILS
NOT TO SCALE

STEEL STAIR STEPS AND CONCRETE BASE INSTALLED BY THE FIELD CONTRACTOR.



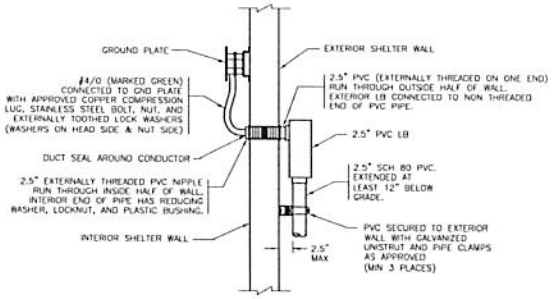
GROUNDING WORK BELOW GRADE SHALL BE INSTALLED BY THE FIELD CONTRACTOR.

TYPICAL EQUIPMENT BUILDING EXTERIOR LIGHTNING PROTECTION PLAN
NOT TO SCALE

NOTE:

GROUNDING CONDUCTORS FROM THE BUILDING TO THE COUNTERPOISE OUTSIDE OF THE BUILDING INCLUDE:

- GROUNDING ELECTRODE CONDUCTOR FROM THE MAIN SERVICE DISCONNECT (ROUTED IN 1" SCH 80 PVC).
- GROUNDING CONDUCTORS FROM GROUND PLATE (ROUTED IN 2.5" SCH 80 PVC).
- GROUNDING CONDUCTORS FROM THE SHELTER SKIDS (2 PLACES).
- GROUNDING CONDUCTORS FROM THE BUILDING AIR TERMINALS (2 PLACES).
- GROUNDING CONDUCTOR FROM EXTERNAL INTERFACE BOX (CHASSIS & BULKHEAD GNDS) - NOT SHOWN ABOVE.
- BONDING CONDUCTORS FROM EXTERNAL METALLIC BODIES LOCATED WITHIN 6 FEET HORIZONTALLY OF ANY DOWN CONDUCTOR (SUCH AS HVAC UNITS AND DOOR HOOD). TERMINATE THESE TYPES OF CONDUCTORS ON THE DOWN CONDUCTOR FROM THE AIR TERMINAL USING APPROVED PARALLEL CONNECTORS.



ROUTING DETAIL FOR #4/0 FROM GND PLATE
NOT TO SCALE

reference

REV	DESCRIPTION	JCN	RELEASE DATE	APVD

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
ATO - TECHNICAL OPERATIONS — WESTERN SERVICE AREA

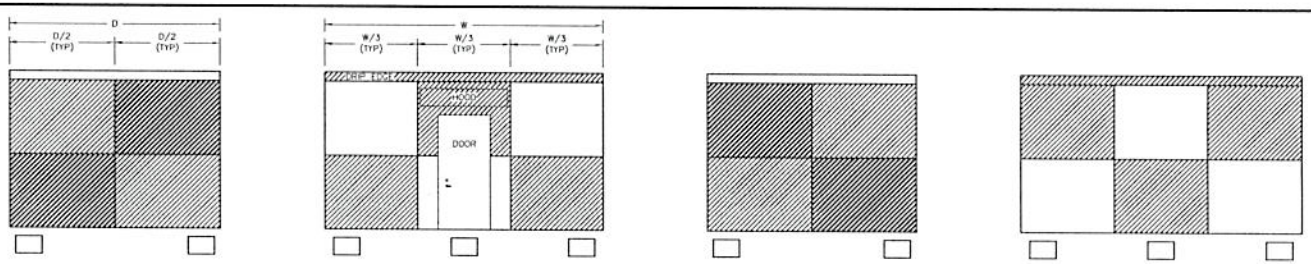
LOCALIZER BLDG FABRICATION RUNWAY 25L BUILDING MISC DETAILS - 1

PHOENIX — PHOENIX SKY HARBOR AIRPORT — AZ

REVIEWED BY	SUBMITTED BY:		APPROVED BY:	
	PROJECT ENGINEER: BOB BROWN	ISSUED BY ENGINEERING SERVICES NAVAIDS	MGR: NAVAIDS ENGINEERING	
	DESIGNED: B.BROWN		DATE: -	JCN: -
	DRAWN: B.BROWN		DRAWING NO.: PHX-B-LOC25L-ZfabB	REV. -
	CHECKED:			

X

2.15.11

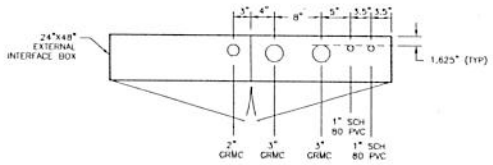


12X16 EQUIPMENT BUILDING
CHECKERBOARD PAINT PATTERN

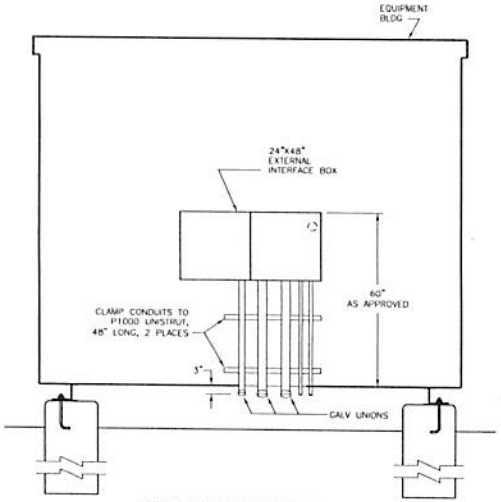
NO SCALE

AVIATION ORANGE

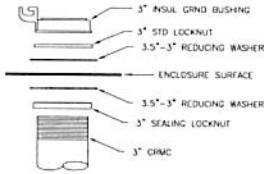
WHITE



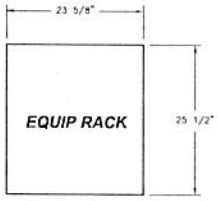
PENETRATION DIMENSIONS
SCALE X2



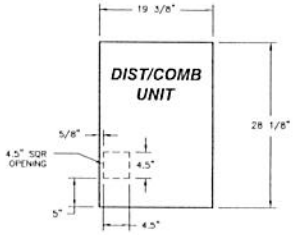
CONDUIT EXTENSIONS FROM EXTERNAL INTERFACE BOX
NO SCALE



CONDUIT PENETRATION INTO INTERFACE BOX
3" GRMC SHOWN, 2" GRMC SIMILAR
(SCALE X 5)



CUTOUT REPRESENTING LOCALIZER EQUIP RACK
(PLACED ON FLOOR AS DIRECTED)
CUTOUT MADE FROM 1/2" THK PLYWOOD – NO SCALE



CUTOUT REPRESENTING DIST/COMB UNIT
(PLACED ON WALL AS DIRECTED)
CUTOUT MADE FROM 1/2" THK PLYWOOD – NO SCALE

reference

APPROVED / DATE	DESCRIPTION	JCN	RFS INC DATE	APVD

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
ATO – TECHNICAL OPERATIONS — WESTERN SERVICE AREA

LOCALIZER BLDG FABRICATION
RUNWAY XX
BUILDING MISC DETAILS – 2

PHOENIX — PHOENIX SKY HARBOR AIRPORT — AZ

REVIEWED BY	SUBMITTED BY:	APPROVED BY:
	PROJECT ENGINEER: BOB BROWN	MGR: NAVNDS ENGINEERING
	DESIGNED: B.BROWN	DATE: — JCN: —
	DRAWN: B.BROWN	DRAWING NO.: PHX-B-LOC25L-ZfabC — REV: —
	CHECKED:	

ISSUED BY: ENGINEERING SERVICES NAVNDS

X

2.15.11